

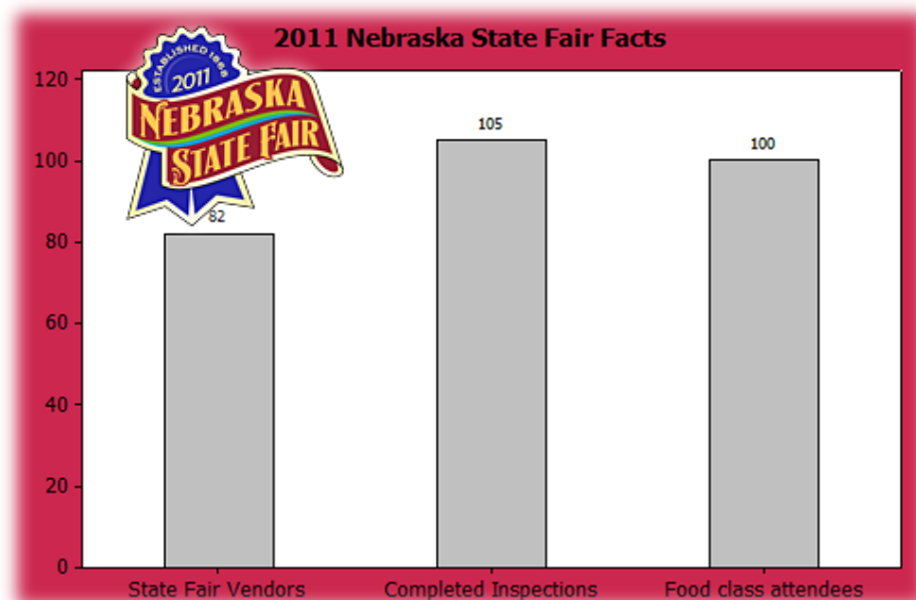
**Central District Health Department is pleased to present its 2010-2011 Annual Report. We strive to be the leader in assuring a healthy community. Our mission is to educate, protect, assist and collaborate through comprehensive public health programs based on best practices.**

### **1. Monitor health status and understand health issues facing the community**

A best practice in public health is to conduct periodic community assessment. These assessments, usually undertaken every three to five years, provide an updated snapshot of the community's health status. During the summer of 2010, a community health assessment was initiated by Central District Health Department (CDHD), and was completed at the end of December. Diverse community focus groups were convened to evaluate the current status and to envision the future of public health within Hall, Hamilton and Merrick counties. Consensus building meetings were held in each county following a national best practice model: Mobilizing Action thru Planning and Partnerships (MAPP). Lifestyle issues were common in discussions in all three counties with a common thread in obesity. Analyses narrowed obesity related problems down to top issues in each county: poor nutrition and lack of physical activity. Current local, state and national data confirms the collective wisdom received during the assessment that obesity is indeed a major problem creating poor health outcomes. CDHD is in the process of program planning to address issues identified by the assessment to better serve the local community

### **2. Protect people from health problems and health hazards**

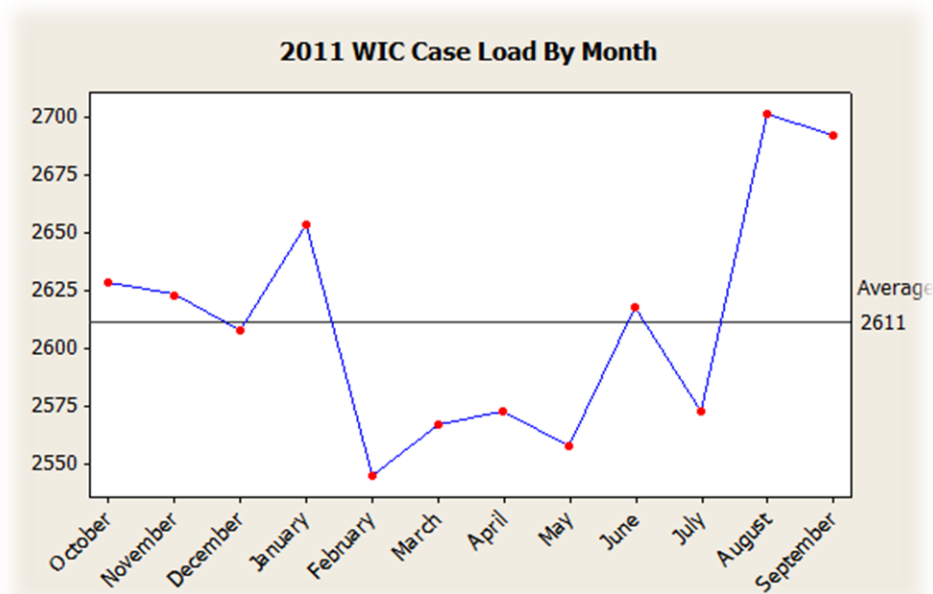
In its second year in Grand Island, the Nebraska State Fair grew even larger. Nearly eighty food vendors were inspected and permitted prior to opening day, with follow-up inspections throughout the 10-day event. Additionally, CDHD held a food safety class which was required attendance for State Fair food vendors. In this way, CDHD assured that State Fair purchased foods and beverages are safe for consumption.



West Nile, while less of a health threat than in past years, still presents a potential health hazard. Throughout the summer and into fall, CDHD staff monitor mosquito populations for number and type. Weekly samples are submitted to the state for analysis. Environmental Health staff base the mosquito control program activity on the monitoring results as well as on community feedback. When CDHD is aware that large gatherings are taking place outdoors, such as during holiday weekends or during the state fair, mosquito fogging activity increases. Additionally, CDHD increases its efforts to educate the public to take personal precautions against being bitten by mosquitoes. This year, CDHD participated in a West Nile Virus booth at the state fair where educational information was made available and samples of insect repellent with DEET were provided.

### 3. Give people information they need to make healthy choices.

CDHD reminds the public that they have the power to live healthy lives. Through a variety of programs and services, staff provide people with information needed to make healthy choices. Staff provide educational classes on prioritized issues. On a daily basis, WIC Clinic staff give parents useful information specific to the nutritional needs of their children. A special focus of WIC is the Breast Feeding Peer Counselor Program where counselors who are or have been WIC participants provide support and lay education to current WIC participants.



This year, two new health promotion programs have been implemented. In its first year, the Healthy Works Program focus is on assessing the current environment in various worksites. This information will be shared with a Community Advisory group that has been formed to help plan the program components to be implemented after the assessment is complete. The second program is called CHAMP (Choosing Health and Maximizing Potential). This program targets adults of ethnic or racial minority backgrounds. Participants attend a series of educational sessions and, along the way, develop personal health improvement plans. Peer educators work with participants to overcome barriers and

achieve health lifestyle changes according to each personal health improvement plan. An additional component of this program is the offering of an afterschool educational program which includes drug and alcohol resistance as well as education on nutrition and physical activity. CDHD serves as the fiscal agent and Program Director for CHAMP's implementation across 6 counties in Central and Southern Nebraska. Partners include Two Rivers Health Department, Central Health Center, Tri-Counties Hospital, and Central Nebraska Council on Alcohol and Addictions.

#### **4. Engage the community to identify and solve health problems.**

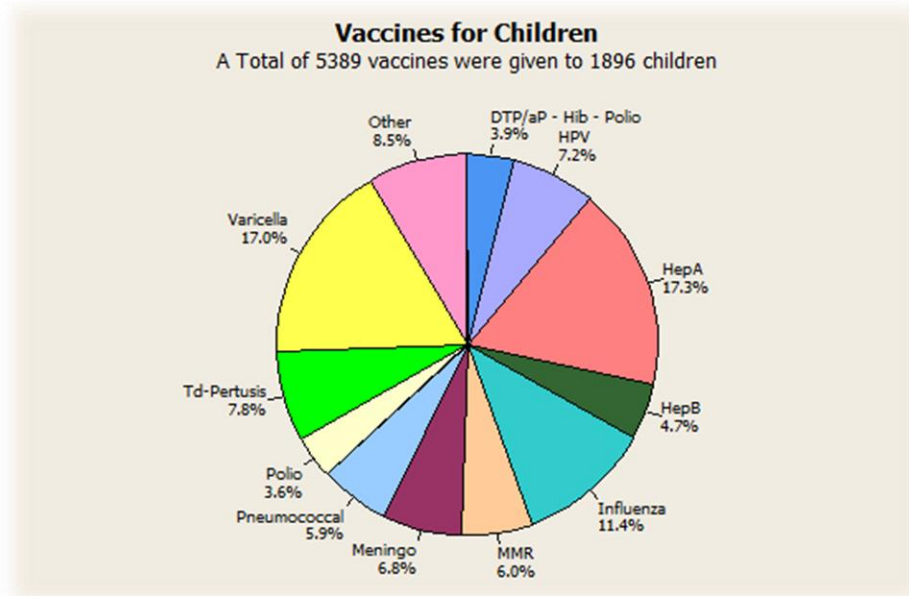
Access to health care continues to be a problem in Central Nebraska. This year, a grant submission to bring a federally qualified health center to Central Nebraska failed to be funded by HRSA. CDHD, South Heartland Health Department, Head Start and other entities united on the Board of the Heartland Health Center will continue to push forward to make the Heartland Health Center a reality at the next possible opportunity to submit for funding.

#### **5. Develop public health policies and plans.**

Now that obesity has been identified as a major contributor to poor health health, the planning begins. The process takes time as community partners are identified and invited to join in the planning activities. The process begins with looking at what is already in place to address obesity, and how existing efforts can be strengthened to be more effective. Seemingly simple interventions like point of decision posters that suggest taking the stairs rather than the elevator and workplace policies that encourage healthy foods in vending machines combine to set the environment for healthy choices at worksites. In time, these healthy worksite choices spill over into home life. In the next year, community groups will meet to identify, develop, and implement food and physical activity policies in places such as schools, worksites, and churches.

#### **6. Enforce public health policies and plans.**

CDHD provides Vaccine for Children Immunizations. Through this program, children are immunized against childhood diseases that can cause illness and even death. School officials cooperate with CDHD to establish "kick-out" days for children whose parents have failed to seek required vaccinations. Throughout the process, school nurses and CDHD staff work cooperatively to assure that parents have access to and seek appropriate vaccinations for their children. This year, a second Varicella (chicken pox) vaccination was added to the required school immunization list. Special clinics were held throughout the summer and into the fall to assure that children could attend school fully immunized.



## 7. Help people receive health services

CDHD serves as a clearing house for public health information. Phone calls pertaining to a variety of issues including enrolling in Kid's Connection, finding a dental or medical home, and obtaining travelers shot are handled throughout the day. This year, CDHD once again served as cosponsor of the Mission of Mercy two-day free dental clinic. This is the second time the clinic has been held in Grand Island. Close to 1500 individuals received 6264 procedures free of charge. The need for dental services is great in Central Nebraska, and while this 2-day event barely grazes the surface, it provides a path to better health for a few folks.

## 8. Maintain a competent workforce.

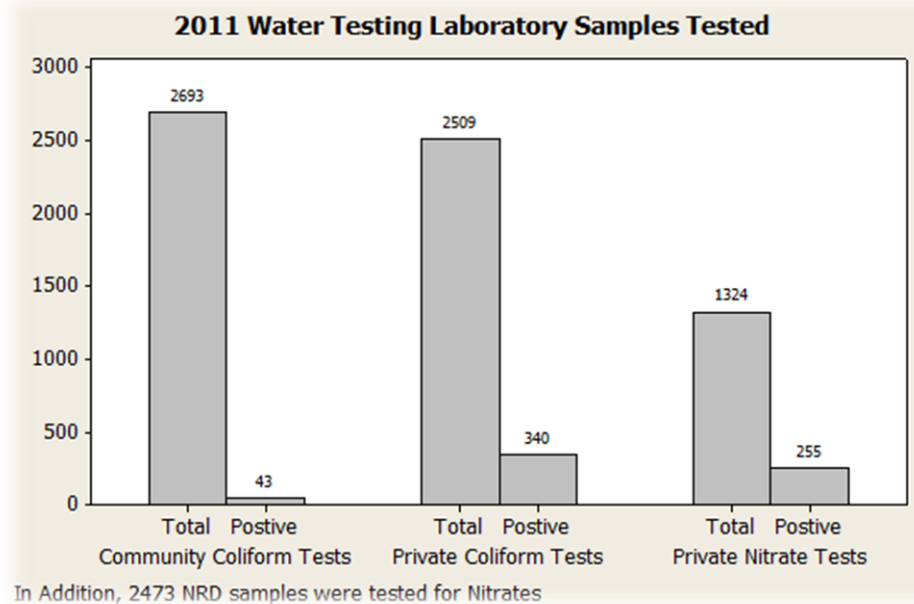
Based on ongoing internal assessment, CDHD administration looks at the organizational structure of the organization to assure optimal utilization of staff and resources. CDHD encourages staff to attend appropriate continuing education workshops, and offers tuition reimbursement. Additionally, CDHD staff are encouraged to be members of and serve on committees and work groups of state and national public health related organizations. These activities provide opportunities for staff to network with peers and to become familiar with new evidenced-based practices, as well as current and future trends in public health. This year, CDHD developed an electronic tracking mechanism to better record employee participation in educational activities.

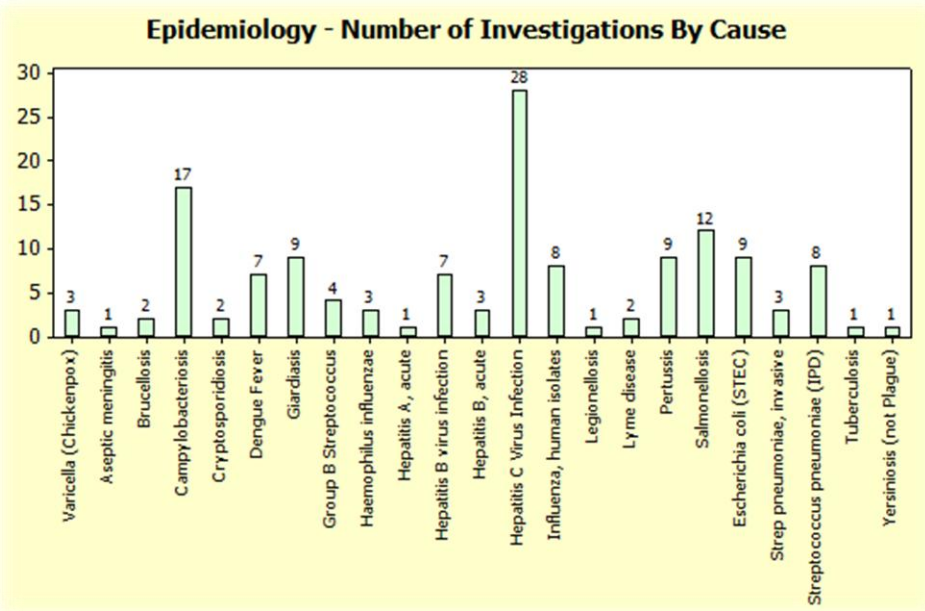
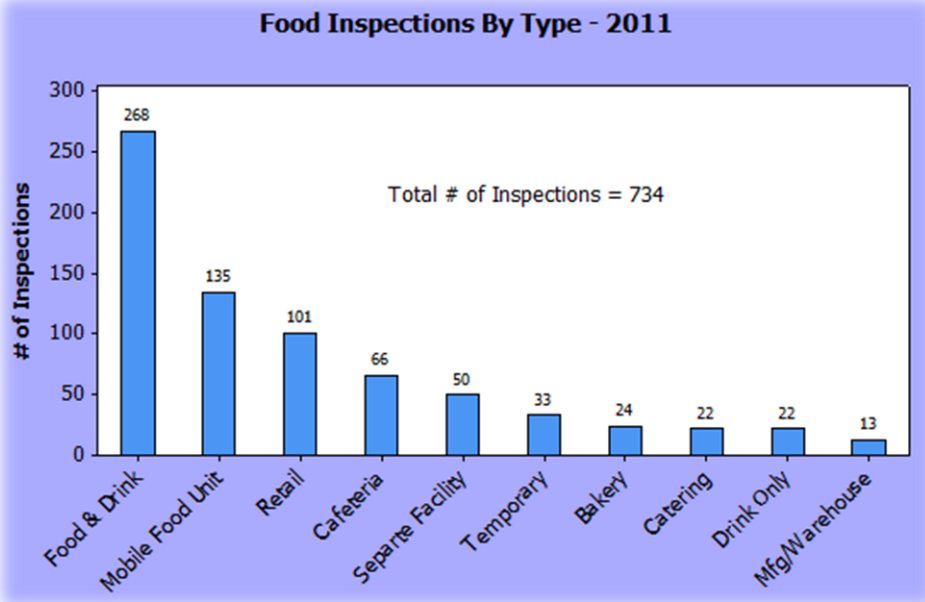
## 9. Evaluate and improve programs and interventions

CDHD staff are engaged in ongoing program evaluation. Each existing program is evaluated for the following:

1. Are program outcomes aligned with the organizational mission?
2. Does the program meet identified community needs?
3. Is the program working, i.e. is something changing for the better based on what we are doing?

Evaluation processes provide an opportunity to teach evaluation skills and methods to staff. Then program revisions based on these evaluation findings can work toward improving program efficiencies and effectiveness.

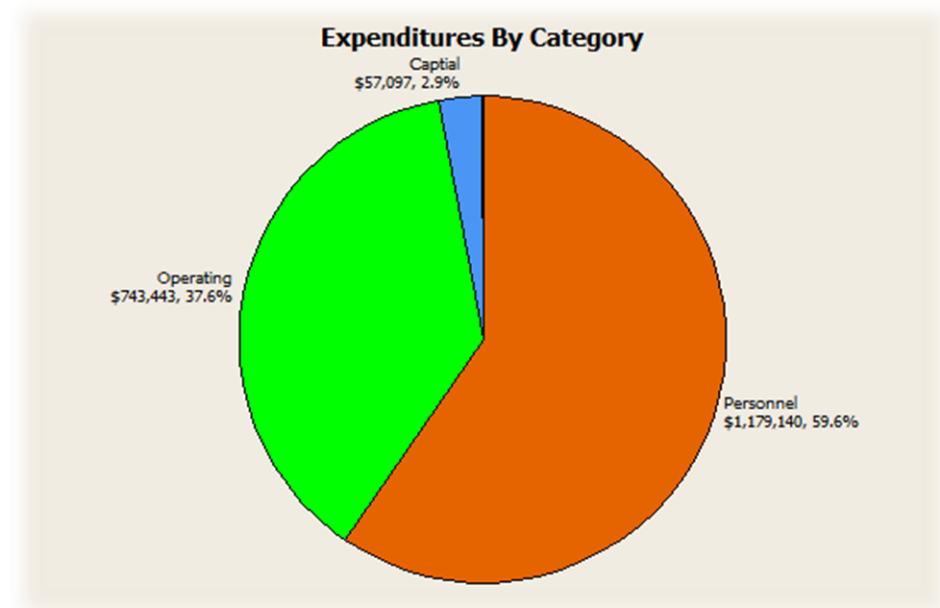
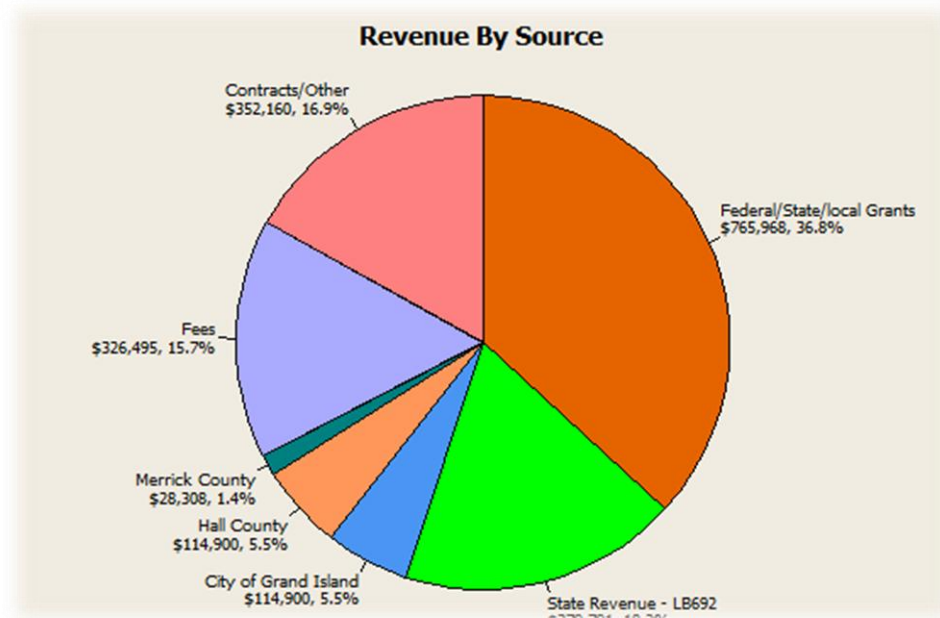




## 10. Contribute to and apply evidenced based practice of public health

New programs are grounded in public health science and designed by CDHD staff using current and promising best practices appropriate to rural settings. Components related to program evaluation including measures of structure, process, and outcomes are shared at staff meetings as well as at

statewide meetings such as PHAN, NEHA, and SACCHO. CDHD shares program materials and lessons learned with other public health organizations throughout the state and across state lines.



## STORY TELLING

### Dengue Fever comes to Central Nebraska

Dengue fever is an acute febrile illness caused by a particular type of mosquito typically found in the tropics. These particular mosquitoes do not live in Nebraska. So how did it happen that five Central Nebraska residents landed in the hospital with the diagnosis of Dengue? And why would this be so important, that the CDC, DHHS and CDHD held weekly conferences for 6 weeks to unravel the mystery? The story unfolds...

On a mild October afternoon, CDHD received a call from a local physician, asking for assistance. Over the course of the weekend, he had seen five patients in the emergency room with similar symptoms. All had high fevers, severe headaches, and general achiness with joint and muscle pain. The physician stated that all five had something else in common besides severe symptoms: They, along with 18 other folks had all recently returned from a mission trip to Haiti.

After a quick phone consultation with DHHS, CDHD staff proceeded to the physician's office with the objective of drawing blood samples and obtaining histories from each of the travelers in order to determine or at least narrow down the cause of the illness. Through an amazing level of cooperation on the part of the physician, his office staff, and the travelers themselves, a blood sample and a brief history was obtained on 19 of the travelers, with the rest providing blood and history within the next few days.

In the next 48 hours, five of the travelers were admitted to hospitals with severe symptoms. A conference call with Dr. Arguello, Chief of the CDC's Dengue Branch in Puerto Rico, provided valuable information related to Dengue. According to Dr. Arguello, the chief concern for those affected by Dengue is that the second Dengue infection can result in hemorrhage and shock. At the time this presented a great concern as several of the travelers had previously been to areas where Dengue is endemic. This called for close monitoring of each of the hospitalized travelers, and Dr. Arguello made personal phone calls to physicians caring for these folks. Fortunately, all of the travelers recovered completely over time. Does the story end here? No, there is more!

As weekly calls continued, it became clear that there was much to learn and to be shared from this cluster of Dengue in Nebraska. Information gathered in months to come could and would actually reduce the risk to future travelers. Questions abounded! Why did 5 of the 23 travelers get so very sick, while the others whose blood tests showed that they had been exposed to Dengue have mild or no symptoms? Since Dengue and West Nile Virus (WNV) are both carried by mosquitoes and are close in their viral composition, does previous exposure to WNV influence the severity of symptoms when infected with Dengue and vice versa? Are the travelers who were exposed to Dengue at increased risk if they choose to return to the tropics and are they increased risk if they contract WNV?



Again, with an amazing level of cooperation from our mission travelers, CDHD was able to obtain additional blood specimens and additional information. While not all questions were answered, several truths emerged. There is a risk of Dengue among travelers to Haiti and effective pre-travel education is essential. Education should include risks for travel destinations, effective mosquito-avoidance practices, and steps to take if a traveler becomes ill during or soon after return.

Articles related to this disease investigation were published in MMWR (Morbidity Mortality Weekly Report), The Journal of Tropical Medicine and Hygiene, and JAMA (Journal of the American Medical Association). Local, state, and federal cooperative efforts resulted in a disease investigation that will assist in educating travelers to the tropics. The findings of this disease investigation also set the stage for future research into mosquito borne viruses that infect humans.